

REMARKS

Claims 21-32 and 57-81 are pending in the application. Claims 21-32 and 57-81 have been rejected. Reconsideration and withdrawal of the rejections set forth in the Office action dated January 29, 2004 are respectfully requested.

I. Amendments

Claim 68 is amended to add the word "and" for proper Markush format and to add a period at the end of the claim.

II. Rejection under 35 U.S.C. §103

Claims 21-32 and 57-81 were rejected under 35 U.S.C. §103 as allegedly obvious over Torchilin *et al.* (U.S. Patent No. 5,534,241) further in view of Harris *et al.* (U.S. Patent No. 5,932,462). This rejection is respectfully traversed for the following reasons.

Summaries of the present invention and the cited art are provided in Applicants' response submitted January 3, 2002.

A. Analysis

The Examiner maintains the position that it would have been obvious to use any targeting molecule in the polymer complex of Torchilin *et al.* with the expectation of obtaining at least similar results since Harris *et al.* teach that any ligand can be coupled to the hydrophilic polymer system. The Examiner's specific comments regarding Applicants' earlier arguments are addressed individually.

1.0 The Examiner finds Applicants' earlier argument that Torchilin *et al.* describe a lipid-polymer-polychelating agent, where the polychelating agent has no binding affinity for a receptor expressed on a cell unpersuasive on the grounds that Torchilin's invention is concerned with both therapeutic and diagnostic purposes and on Col. 12, lines 6-10 teaches that liposomes are additionally modified with a target group or other surface modifications. The Examiner goes on to note that (1) Torchilin teaches the attachment of

antibodies (claim 5), (2) that these are suggestive of the use of any group which could serve as the targeting ligand including those which recognize receptors on the cell surface, and (3) Torchilin's intent of attaching other targeting moieties is also clear from the teachings on Col. 2, lines 18-59.

The teaching in Torchilin *et al.* regarding targeting groups and attached antibodies is limited solely to attachment of targeting groups to the liposome lipid bilayer membrane. See, for example Col. 9, lines 19-22 ("To obtain a liposome or micelle that is targeted for a specific antigen tissue, organ, or in the body, a targeting group is bound to the lipid membrane surface of the liposome, or linked to the micelle"), Col. 2, lines 18-24 ("The invention also features a liposome including a lipid bilayer membrane and.....This liposome can further include a plurality of ions bound to the chelating agents, and may be modified with a targeting group, e.g., and antibody, bound to the membrane."); Col. 2, lines 33-38 ("....a compound is "bound" to a liposome membrane when it is chemically or physically attached to the membrane, e.g., by the intercalation of a lipid-soluble anchor into the membrane itself, or by binding directly to active groups of the membrane lipid, thus using a preexisting 'anchor'.").

Thus, it is clear from the teaching in Torchilin that any attachment of targeting groups is limited to a teaching of attachment to the lipids forming the bilayer lipid membrane. Torchilin does not show or suggest attachment of a targeting group to the distal end of a lipid-derivatized polymer chain.

2.0 The Examiner cites Harris *et al.* "for its teachings of various targeting ligands." (Final Office action, page 3, line 9-10).

The combination of Harris *et al.* and its teaching of various targeting ligands with Torchilin *et al.* does not arrive at the claimed lipid-polymer-ligand conjugate for the reasons given in 1.0 above.

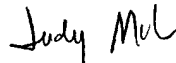
Accordingly, Applicants respectfully request withdrawal of the rejection under 35 U.S.C. §103.

CONCLUSION

It is respectfully submitted that each of the pending claims 21-32 and 57-81 are in condition for allowance. A Notice of Allowance is respectfully requested.

The Examiner is invited to contact Applicants' representative at (650) 838-4402 as needed.

Respectfully submitted,



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